ANNUAL REPORT FOR 2012

SALT Mitigation Site-Permit Violation Area
Moore County
TIP No. R-0210WM
COE Action ID: 199300570
DWQ Project #: 010404

Natural Environment Section & Roadside Environmental Unit
North Carolina Department of Transportation
December 2012

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SUMMARY

The following report summarizes the monitoring activities that have occurred in 2012 at the Sandhills Area Land Trust (SALT) Mitigation Site-Permit Violation Area. The 2012-year represents the first year of monitoring following remediation that was completed by the N.C Department of Transportation (NCDOT) during 2011. The site must be monitored by visual observation for five years or until the site is stabilized and deemed successful by the U.S. Army Corps of Engineers. This site was used as compensatory wetland mitigation to offset unavoidable wetland impacts associated with R-210, US 1 Relocation near Vass.

The NCDOT became aware of improvements to the old logging road that bisects the SALT mitigation site in Moore County in 2009. The property is located off Lakebay Road (SR 2023) southwest of Lobelia. The road improvements include the placement of earth fill material and/or aggregate, as well as culverts, in low lying areas of the road. The current actions were undertaken by the current property owner, with no prior knowledge by NCDOT, until the work was completed. NCDOT holds a Conservation Easement, dated July, 1998, on this parcel, which specifically prohibited such activity.

In December, 2009, NCDOT surveyed the extent of the fill material and culvert installation along the old logging road that bisects the project (see attached plan sheets). There were 5 distinct areas along the path where fill and/or aggregate were used to improve and armor the surface of the road. There were 5 plastic, circular culverts of various sizes that were installed in the washouts along the road, in order to pass surface water flow under the road. Also, fill material and/or aggregate was installed to a depth ranging from approximately 1”-2” in some areas, up to 12”-15” at the culvert locations. There were also 2 distinct rock stockpile locations immediately adjacent to the logging road in upland areas of the site.

NCDOT proposed to remove the 5 new cross pipes (see attached plan sheets) that were installed along the access road to prevent surface water from flowing under the road. In addition, unstable fill material, as well as fill material greater than 3 inches in depth were removed, to the extent possible, and transported to an NCDOT approved stockpile area approximately 2 miles from the mitigation property. The entire logging road was stabilized with a native wetland seed mix and planted with the appropriate bottomland hardwood species. In an effort to prevent future vehicular access along the old logging road following implementation of the remediation plan, NCDOT proposes to excavate a trench across the road in the upland section

After first year of monitoring, the SALT-Mitigation Site Permit Violation Area demonstrates by visual observation that the logging road is stable and the planted species are surviving. NCOT proposes to continue all monitoring for 2013
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1.0 INTRODUCTION

1.1 Project Description

The Sandhills Area Land Trust (SALT) Mitigation Site serves (entirely) as mitigation for the R-210 (US-Bypass). The 327-acre site is located is located in southern Moore County, along the Little River, near the town of Lobelia. The 327-acre site includes restoration of both riverine hardwood and swamp forest wetlands. The 2012-year represents the first year of monitoring following remediation that was completed by NCDOT during 2011. The site must be monitored by visual observation for five years or until the site is stabilized and deemed successful by the U.S. Army Corps of Engineers.

1.2 Purpose

Upon successful completion of the remedial work, the logging road will be monitored annually by visual observation for 5 years or until stabilized and approved by US Army Corps of Engineers. Each annual monitoring report will included a narrative, describing the condition of the logging road along with vegetation will be accompanied by photographs, including photographs of non-impacted sections of the road. The monitoring reports will be posted on the NCDOT website annually. Included in this report are the analysis of the vegetation monitoring results by visual observation as well as photographs of the impacted and non-impacted sections of the road.

1.3 Project History

November 2012	Construction Completed
February 2012	Site Planted (Old Logging Road)
September 2012	Vegetation Monitoring (Year 1)

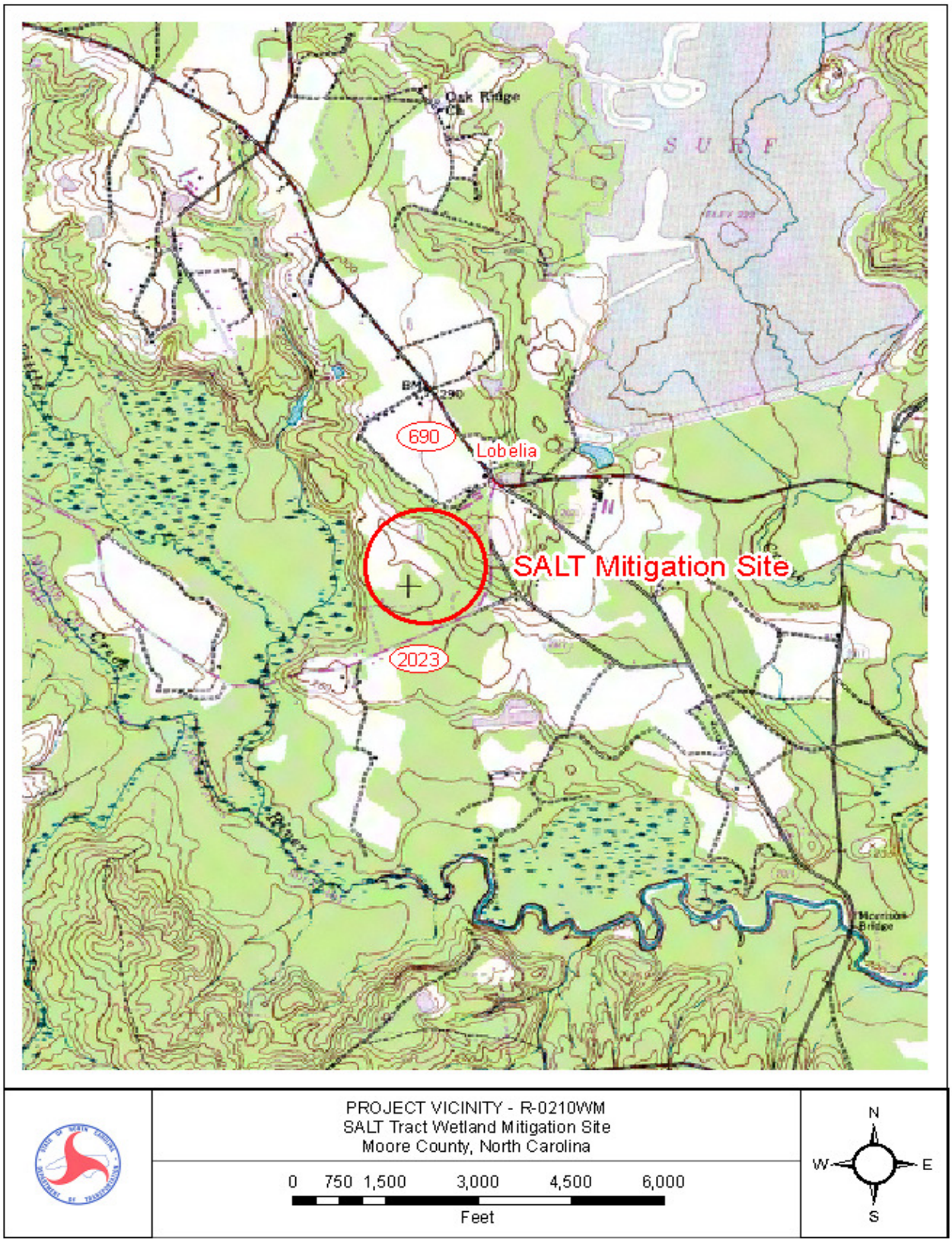


Figure 1. **Site Location Map**

2.0 VEGETATION: SALT MITIGATION SITE (YEAR 1 MONITORING)

2.1 Success Criteria

Upon successful completion of remedial work, the logging road will be monitored visually during the remaining monitoring year. A narrative, describing the condition of the logging road along with vegetation will be accompanied by photographs. This information will be included in the 2012 annual monitoring report for the mitigation

2.2 Description of Species

The following species were planted in the Wetland Restoration Area:

Quercus nigra, Water Oak

Taxodium distichum, Baldcypress

Quercus phellos, Willow Oak

2.3 Results of Vegetation Monitoring

The areas where the pipes and fill dirt were removed from the old logging road are re-vegetating. The planted bareroot seedlings were surviving along the logging road. There were pockets of standing water along the logging road. Other species noted re-vegetating within the old logging road included sweetgum, cattail, smartweed, and various grasses. The access block that was installed at the beginning of the site is keeping vehicular traffic out of the remediation areas..

3.0 OVERALL CONCLUSIONS/RECOMMENDATIONS

After first year of monitoring, the SALT-Mitigation Site Permit Violation Area shows by visual observation that the logging road is stable and the planted species are surviving. NCOT proposes to continue monitoring for 2013.

APPENDIX A

PHOTO POINT LOCATIONS AND SITE PHOTOS

SALT

Photo Point #1 looking north

SALT

Photo Point #2 looking south

Photo Point #2 looking north

SALT

Photo Point #3 looking south

Photo Point #3 looking north

SALT

Photo Point #4 looking south

Photo Point #4 looking north

SALT

Photo Point #5 looking east at removed rock stockpile #1

SALT

Photo Point #6 looking south

Photo Point #6 looking north

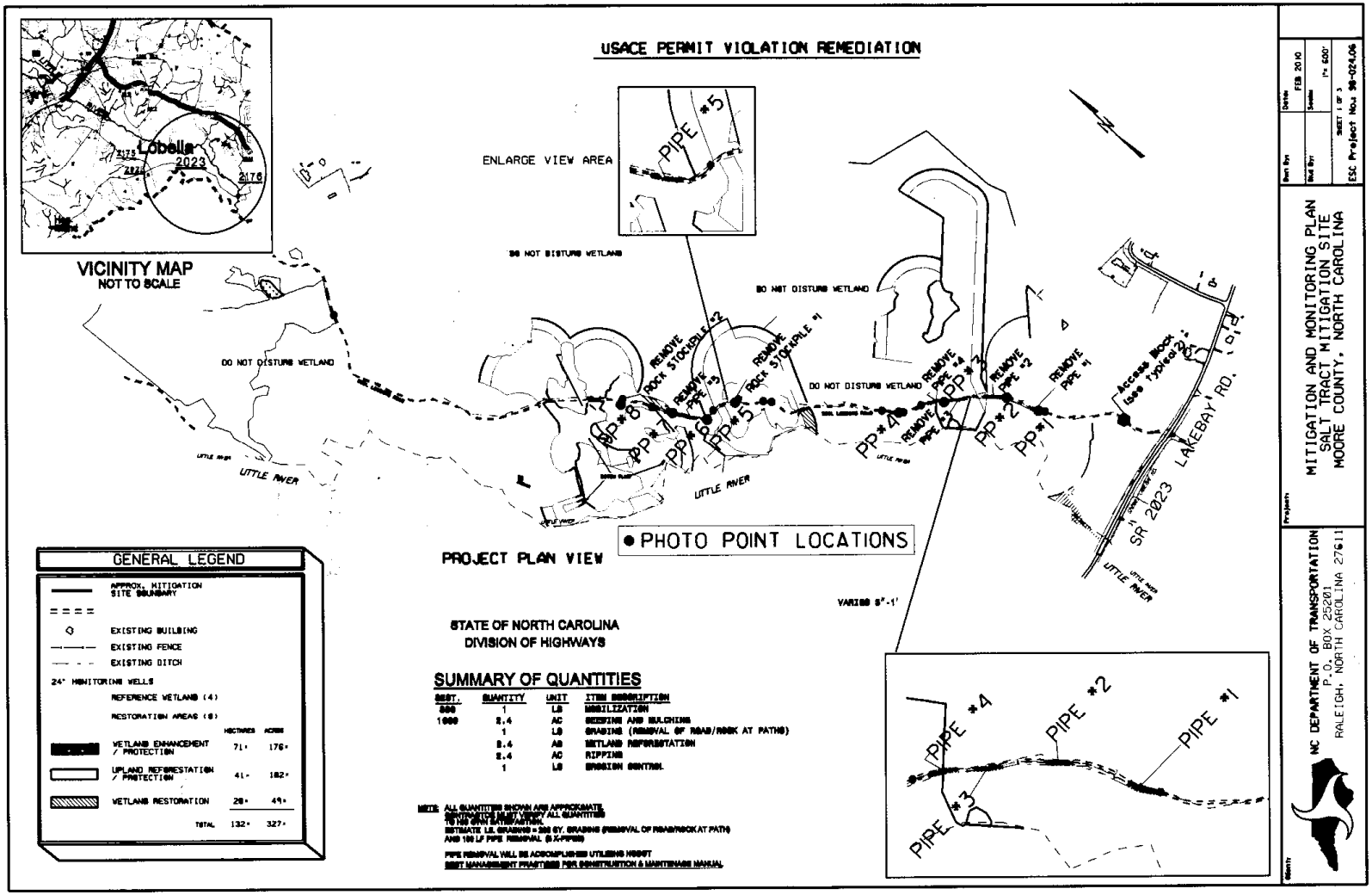
SALT

Photo Point #7 looking south

Photo Point #7 looking north

SALT

Photo Point #8 looking east at removed rock stockpile #2


USACE PERMIT VIOLATION REMEDIATION
ENLARGE VIEW AREA
PIPE #5
DO NOT DISTURB WETLAND
VICINITY MAP
NOT TO SCALE
Lobelia
2023
DO NOT DISTURB WETLAND
REMOVE ROCK STOCKPILE #2
REMOVE ROCK STOCKPILE #1
REMOVE PIPE #3
REMOVE PIPE #4
REMOVE PIPE #2
REMOVE PIPE #1
PP#8
PP#7
PP#6
PP#5
PP#4
PP#3
PP#2
PP#1
Access Block, typical 2x
LAKEBAY RD.
SR 2023
LITTLE RIVER
PROJECT PLAN VIEW
• PHOTO POINT LOCATIONS
VARIES 5'-1'
PIPE #4
PIPE #2
PIPE #1
PIPE #3
GENERAL LEGEND
APPROX. MITIGATION SITE BOUNDARY
EXISTING BUILDING
EXISTING FENCE
EXISTING DITCH
24" MONITORING WELLS
REFERENCE WETLAND (4)
RESTORATION AREAS (8)
HECTARES ACRES
WETLAND ENHANCEMENT / PROTECTION 71+ 176+
UPLAND REFORESTATION / PROTECTION 41+ 102+
WETLAND RESTORATION 20+ 49+
TOTAL 132+ 327+
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES
SECT. QUANTITY UNIT ITEM DESCRIPTION
800 1 LS MOBILIZATION
1660 2.4 AC SEEDING AND MULCHING
1 LS GRADING (REMOVAL OF ROAD/ROCK AT PATHS)
2.4 AC WETLAND REFORESTATION
2.4 AC RIPPING
1 LS EROSION CONTROL
NOTE: ALL QUANTITIES SHOWN ARE APPROXIMATE.
CONTRACTOR MUST VERIFY ALL QUANTITIES
TO THE SITE ESTIMATIONS.
ESTIMATE LS. GRADING = 200 SY. GRADING (REMOVAL OF ROAD/ROCK AT PATH)
AND 100 LF PIPE REMOVAL (3 X-PIPES)
PIPE REMOVAL WILL BE ACCOMPLISHED UTILIZING HDOT
BEST MANAGEMENT PRACTICES FOR CONSTRUCTION & MAINTENANCE MANUAL
MITIGATION AND MONITORING PLAN
SALT TRACT MITIGATION SITE
MOORE COUNTY, NORTH CAROLINA
NC DEPARTMENT OF TRANSPORTATION
P.O. BOX 25201
RALEIGH, NORTH CAROLINA 27611
Drawn By:
Date: FEB 2010
Red By:
Scale: 1" = 600'
SHEET 1 OF 3
ESC Project No.: 98-024.06